

**What Is Claimed Is:**

1           1.    A method for determining regression or  
2    progression of cancer in a patient previously diagnosed  
3    with cancer, the method comprising assaying a sample of  
4    the patient previously diagnosed with cancer for current  
5    level of expression of a nucleic acid molecule which  
6    encodes Sp17, and comparing the current level of  
7    expression to a prior level of expression of Sp17 in the  
8    patient, variation therebetween indicating progression or  
9    regression of the cancer.

1           2.    A method for generating Sp-17-specific immune  
2    effector cells ex vivo comprising:  
3           pulsing antigen presenting cells with recombinant Sp-  
4    17 or antigenic portions thereof; and  
5           contacting the pulsed antigen presenting cells with  
6    immune effector cells for a time sufficient to stimulate  
7    Sp-17-reactive immune effector cells under conditions  
8    permissive for proliferation of Sp17-reactive immune  
9    effector cells, whereby Sp17-specific immune effector  
10   cells are thereby generated.

1           3.    The method of claim 2 wherein the antigen  
2    presenting cells are dendritic cells.

1           4.    The method of claim 2 wherein the immune  
2    effector cells are cytotoxic T lymphocytes.

1           5.    Ex vivo antigen presenting cells that present  
2    Sp-17 antigens for class I MHC, wherein the antigen  
3    presenting cells have had recombinant Sp17 or antigenic  
4    portions thereof introduced into them in a manner  
5    effective to antigenically present the Sp-17 antigen for

6 class I MHC.

1           6.    An isolated cytotoxic T cell line which  
2 specifically recognizes Sp-17.

1           7.    A method of treating a subject suffering from  
2 cancer characterized by cells having Sp17 on the cell  
3 surface, which comprises administering to the subject an  
4 effective amount of the cytotoxic T cell line of claim 6.

1           8.    A method of diagnosing cancer in a subject, the  
2 method comprising:  
3           obtaining a test sample from a subject and  
4 determining level of expression of a nucleic acid molecule  
5 which encodes Sp17 in the test sample; and  
6           comparing the level of expression to level of  
7 expression of Sp17 in a control sample from another  
8 subject known not to have cancer;  
9           wherein a greater level of expression in the test  
10 sample as compared to the level of expression in the  
11 control sample is diagnostic of cancer.

1           9.    The method of claim 8 wherein the level of  
2 expression is determined using an antibody specifically  
3 immunoreactive with Sp17.

1           10.   An immunoconjugate comprising an Sp-17 antigen-  
2 binding agent and a therapeutic agent.

1           11.   The immunoconjugate of claim 10 wherein the  
2 therapeutic agent is selected from the group consisting of  
3 an anti-tumor agent, a cytotoxin, a radioactive agent, an  
4 antibody, and an enzyme.

1           12. The immunoconjugate of claim 10 wherein the Sp-  
2   17 antigen-binding agent is provided as a monoclonal  
3   antibody specifically immunoreactive with Sp-17.

1           13. A method of treating a subject suffering from  
2   cancer characterized by cells having Sp17 on the cell  
3   surface, which comprises administering to the subject an  
4   effective amount of the immunoconjugate of claim 10 such  
5   that the immunoconjugate binds to the Sp17 on the cells'  
6   surface via the Sp-17 antigen-binding agent and the  
7   therapeutic agent kills the cells, thereby treating the  
8   subject.

1           14. A method for selectively killing tumor cells  
2   expressing Sp-17, comprising reacting the immunoconjugate  
3   of claim 10 with the tumor cells.

1           15. A method for imaging cancer cells characterized  
2   by having Sp-17 on the cell surface, comprising  
3   administering to a patient a detectably labeled Sp-17  
4   antigen-binding agent in an amount effective for binding  
5   to Sp-17 present on cells in the patient, and detecting  
6   the bound detectably labeled Sp-17 antigen-binding agent,  
7   thereby imaging the cancer cells characterized by having  
8   Sp-17 on the cell surface.

1           16. The method of claim 15 wherein the detectably  
2   labeled Sp-17 antigen-binding agent is a labeled  
3   monoclonal antibody specifically immunoreactive with Sp-  
4   17.